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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,928	07/27/2001	David H. Levy	13159-004001	9129
26161	7590	11/17/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			CHOW, DOON Y	
			ART UNIT	PAPER NUMBER
			2675	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/916,928	<b>Applicant(s)</b> LEVY ET AL.	
	<b>Examiner</b> Dennis-Doon Chow	<b>Art Unit</b> 2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 58-61 and 67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 58-61 and 67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-14, 58-61 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapeyre (4994992) in view Hillmering (6559778) and Maynard et al. (5557299).

Lapeyre discloses a keyboard, comprising: a tactile feedback means; a matrix of key regions which includes interstitial key regions and raised key regions (Fig. 2); and means for activating the key regions.

Lapeyre does not disclose activating an adjacent key region prior to release of a first activated key region.

Hillmering discloses a keyboard comprising a plurality of key regions (keys). Hillmering further discloses activating a first activated region (key), and an adjacent region (key) before the release of first activated region within a predetermined time period (col. 1, lines 54-58; col. 2, lines 44-49). In response to the activation of the adjacent region, the keyboard provides a final output to the user.

It would have been obvious to one ordinary skill in the art to use Hillmering's activation means in Lapeyre's keyboard. This would have been obvious because

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Hillmering's activation means allows the keyboard to output more data with the same number of key regions.

The modified Lapeyre may not explicitly disclose providing an output to the user to indicate a key region has been activated. But it is well known in the art to provide an audio/visual feedback to the user when a key region (key) is activated. Maynard, for example, teaches the audio and visual feedback. Therefore, it would have been obvious to one of ordinary skill in the art to use the well known audio/visual feedback in the keyboard of the modified Lapeyre so that a feedback can be provided to the user when a key region have been activated.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lapeyre in view of Hillmering and Maynerad et al. as applied to claims 1-5, 7-14, 58-61 and 67 above, and further in view of Ahmadian (5914677).

The modified Lapeyre does not disclose driving two adjacent rows simultaneously and seeking for two simultaneous output columns.

Ahmadian, in the same input field, discloses an apparatus and a method for scanning a keyboard device. Ahmadian further discloses scanning multiple adjacent rows simultaneously and seeking for multiple simultaneous output columns (see Abstract).

It would have been obvious to one of ordinary skill in the art to use Ahmadian's scanning means in the keyboard device of the modified Lapeyre to scanning two adjacent row simultaneously and seeking for two simultaneous output columns. This

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would have been obvious because the speed of scanning the keyboard device can be improved by scanning multiple adjacent rows simultaneously.

### ***Response to Arguments***

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Danish (5339358) teaches a keyboard.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis-Doon Chow whose telephone number is 703-305-4398. The examiner can normally be reached on 8:30-6:00, Alternate Monday off.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

D. Chow  
November 14, 2004

  
DENNIS-DOON CHOW  
PRIMARY EXAMINER